

### ***AMENDMENTS TO THE CLAIMS***

Please amend the claims as indicated hereafter. [Use ~~striketrough~~ for deleted matter (or double square brackets "[[]]" if the strikethrough is not easily perceivable, i.e., "4" or a punctuation mark) and underlined for added matter.]

1. (Currently amended) In a network having interconnected nodes with data tuples that represent nodal connections, a method for mapping a network topology by identifying changes between an existing topology and a new topology, the method comprising:

creating a list of existing tuples from an existing topology representing nodal connections of a network at a prior time;

creating a new list of a plurality of tuples for a topology of [[a]] the network at a current time, wherein the new list of tuples represent nodal connections of the network at the current time, and wherein each of the tuples comprises a host identifier, interface information, and a port specification;

receiving new tuples list that represent new nodal connections; and

comparing the list of existing tuples with the new tuples list to identify changes to the topology.

2. (Currently amended) The method of claim 1, further comprising updating a topology database with a new topology corresponding to the list of existing tuples modified by the changes to the topology.

3. (Original) The method of claim 1, further comprising taking action on the changes to the topology.

4. (Canceled)

5. (Currently amended) The method of claim 1, wherein the step of ~~comparing~~ creating a new list of tuples comprises identifying duplicate tuples that appear both in the list of existing tuples and in the new tuples, and maintaining a current status of the topology for these tuples.

6. (Currently amended) The method of claim 1, wherein the step of ~~comparing~~ creating a new list of tuples comprises identifying a swapped port condition on a connector.

7. (Currently amended) The method of claim 1, wherein the step of ~~comparing~~ creating a new list of tuples comprises searching for a host of a new singly-heard host link tuple or a new multi-heard host link tuple in the list of existing tuples.

8. (Currently amended) A system for mapping a network topology by identifying changes between an existing topology and a new topology, based on changes to data tuples that represent nodal connections comprising:

a topology database that stores an existing topology of a network using tuples, wherein each tuple includes a host identifier, interface information, and a port specification for a node in the network from the existing topology representing nodal connections of the network at a prior time; and

a topology converter connected to the topology database the receives new tuples that represent new nodal connections for a topology of the network at a current time, and compares the new tuples with the existing ~~topology~~ existing tuples to identify changes in the network by comparing the host identifiers, the interface information, and the port specifications, and determines differences between the new tuples with the existing tuples representing nodal connections of the network at the prior time.

9. (Currently amended) The system of claim 8, wherein the topology converter creates the new tuples for the topology of the network.

10. (Original) The system of claim 8, wherein the topology converter updates the topology database with a new topology based on the new tuples.

11. (Original) The system of claim 8, wherein the topology converter attempts to identify swapped ports on connectors.

12. (Original) The system of claim 8, wherein the topology converter identifies duplicate tuples that appear both in the list of existing tuples and in the new tuples, and maintains a current status of the topology for these tuples.

13. (Original) The system of claim 8, wherein the topology converter searches for a host of a new singly-heard host link tuple or a new multi-heard host link tuple in the list of existing tuples.

14. (Original) The system of claim 8, wherein the topology converter searches for a connector of a new conflict links tuple in the list of existing tuples.

15. (Currently amended) A computer-readable medium having computer-executable instructions for performing a method for mapping a network topology by identifying changes between an existing topology and a new topology in a network having an interconnected nodes, the method comprising:

creating a list of existing tuples from an existing topology representing nodal connections of a network at a prior time;

creating a new list of a plurality of tuples for a topology of [[a]] the network at a current time, wherein the new list of tuples represent nodal connections of the network at the current time and wherein each of the tuples comprises a host identifier, interface information, and a port specification;

receiving new tuples list that represent new nodal connections;

comparing the list of existing tuples with the new tuples list to identify changes to the topology; and

updating a topology database with a new topology based on the comparing.

16. (Currently amended) The medium of claim 15, wherein a topology converter receives the new tuples list from a connection calculator that calculates connections between nodes.

17. (Currently amended) The medium of claim 15, wherein the step of comparing creating the new tuples list comprises identifying duplicate tuples that

appear both in the list of existing tuples and in the new tuples list, and maintaining a current status of the topology for these duplicate tuples.

18. (Currently amended) The medium of claim 15, wherein the step of ~~comparing~~ creating the new tuples list comprises identifying a swapped port condition on a connector.

19. (Currently amended) The medium of claim 15, wherein the step of ~~comparing~~ creating the new tuples list comprises searching for a host of a new singly-heard host link tuple or a new multi-heard link tuple in the list of existing tuples.

20. (Currently amended) The medium of claim 15, wherein the steps of ~~comparing~~ creating the new tuples list comprises searching for a connector of a new conflict links tuple in the list of existing tuples.